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Judging Dairy Cattle



AGRICULTURAL EXPERIMENT STATION
UNIVERSITY OF WISCONSIN
MADISON

DIGEST

The most successful dairyman is a good judge of dairy cattle. The development of higher standards relating to the maintenance of dairy herds and the production of most satisfactory milk make it necessary to improve the herd if dairying is to be profitable. Quality and productiveness of cows are more important than a larger number of cows. Judging exercises are of great value in bringing about this end.

Pages 3-6

Dairy cows of improved type and breeding are milk-making machines. They have size and capacity for feed consumption, constitution and good health, dairy disposition and good udders which are primary essentials. They furthermore produce most valuable offspring.

Pages 7-8

Feed capacity and dairy temperament are indicated by triple wedge-like forms of the body. One is on the side, one on the back, and the other in the shoulders. The base of these wedges or triangles indicates feed capacity, the sharp point dairy temperament.

Pages 9-12

Constitution and well-developed milk organs are highly essential. No cow is ever perfect. Udders that are well developed and nicely balanced, together with general style and quality, add much to the value of good producing cows.

Pages 13-19

The Babcock tester and the milk scale must be relied upon for final judgment on a cow's ability to produce milk and butter fat. Dairy-men could gain millions of dollars' worth of feed by weighing and testing the milk of individual cows.

Page 20

Pedigrees are of value in judging the future returns and excellence of the herd. A pedigree shows the ancestors of a given animal and its value lies in the fundamental law that "like tends to produce like". It pays to have a herd comprised of one family of high-producing cows.

Pages 20-24

Most careful judgment should be exercised in selecting the dairy bull. When well selected, "the sire is more than half the herd". Proven, "bred-for-production" sires should be preserved and used to the fullest extent.

Pages 24-26

The best judges of dairy cattle usually own or manage a good dairy herd and make a careful study of judging. A score card or scale of points, the object of which is to train the mind to notice the various parts of the animal, may be used to good advantage in acquiring the art of judging. One should never miss an opportunity to take part in judging exercises and contests. Community judging contests develop cattle judges and improve dairy herds.

Pages 27-31

Wisconsin has many herds of most excellent dairy cattle. They have been developed by men whose judgment has been based on production and showyard standards of excellence embodied in production records, representative animals, and a scale of points for the breed.

Pages 32-44

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Judging Dairy Cattle

GEORGE C. HUMPHREY

The most successful dairymen are usually good judges of dairy cattle. The ability to select profitable from unprofitable cows has always been a strong factor in successful dairying; and in the future, even more than in the past, it will be highly important for all dairymen to acquire this ability.

The permanency of dairy farming is assured by the growing appreciation and increased consumption of milk and milk products. Incident to the growth of the dairy industry, there are higher standards developing relative to conditions under which

A GOOD JUDGE OF DAIRY CATTLE

- Makes fewer mistakes in buying cattle.
- Gets better prices for his surplus stock.
- Selects and builds up a herd of cows of uniform size, breed and quality.
- Receives a higher and more uniform production of milk and butter fat.
- Makes greater returns over and above the cost of feed and care.
- Uses better sires and secures better calves.
- Has better success in feeding and showing cattle at fairs and expositions.
- Has greater satisfaction and pleasure in owning a dairy herd.

milk is produced, that make it necessary for the farmer to maintain only the best class of cows. The cost of feed and labor, and the maintenance of sanitary and clean equipment to insure healthy cows and a satisfactory product, naturally make the demand for bred-for-milk-and-butter-fat cattle insistent. It is becoming more and more important to know all the facts that enable one to select cows which will qualify for large and profitable production of milk and butterfat.

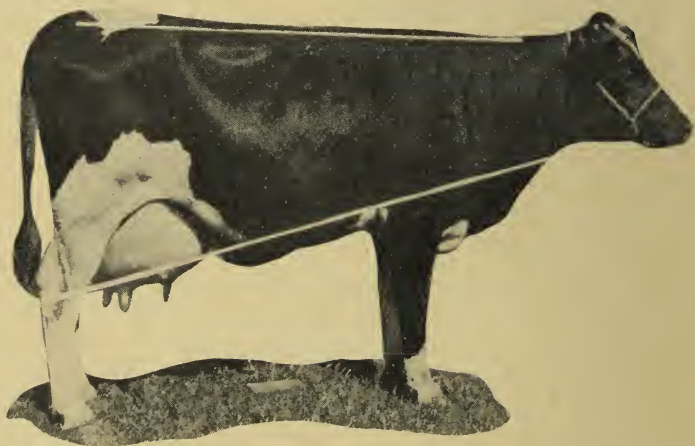


FIG. 1—THE DIFFERENCE BETWEEN BEEF AND DAIRY TYPES
The beef animal has straight top and bottom lines, while the dairy cow
is wedge shaped.



FIG. 2—BEEF ANIMALS BLOCKY, DAIRY CATTLE ANGULAR

Fullness of the fore and hind quarters are typical of the beef animals. A comparatively long head, sharp brisket, and a pronounced udder development characterize the dairy cow.

EDUCATIONAL VALUE OF JUDGING EXERCISES

Judging exercises and judging contests are of distinct educational value and have become popular in the programs of high schools, secondary schools, community and breed association meetings, and boys' and girls' club meetings. Judging dairy cattle and other livestock develops observation and judgment on the part of those who participate. Contests or judging exercises can be recommended for every school and community of the state. Such exercises stimulate a greater interest in livestock and promote better standards for rural livestock production. Wisconsin is destined because of its present advanced stage in dairying, its climate, its nearness to good markets, and the training of its people, to occupy a highly important place in the dairy industry of America. It is more important to improve the quality and productiveness of the cows than to increase the number and the size of the herds to meet the demands for dairy cattle and dairy products. Careful judgment in the selection, breeding and development of individual herds depends on having a clear knowledge of the dairy cow and her requirements.

WHAT IS A GOOD DAIRY COW?

Cows which are heavy producers usually have certain well-defined characteristics common to one of the recognized dairy breeds. The National Dairy Show Association of this country recognizes Ayrshires, Brown Swiss, Guernseys, Holsteins and Jerseys as the leading dairy breeds. Purebred animals possess 100 per cent of the blood of their respective breeds. Grade animals have a predominance of the blood of a given breed, but less than 100 per cent. Grade cows are usually by purebred sires and out of native or grade cows. The breeding or ancestry of a cow largely determines her characteristics, the use she makes of her feed, and the characteristics of her calves. Dairy breeding insures in a great measure against disappointment when one buys or raises a cow for milk production. Furthermore it gives her power to reproduce herself in offspring that tend to correspond to her in type and excellence.

Cows which possess certain so-called "dairy characteristics" are, as a rule, more economical producers of milk and butter fat than those which lack these features. A ready acquaintance with these,

as well as with the line of breeding represented, will aid the dairyman in selecting profit-producing cows. Even the most expert judges of dairy cattle are unable, of course, by relying solely upon the appearance and a study of family records, to foretell a cow's ability to produce milk and butter fat. That, in the end, is told only by the use of the milk scale and the Babcock tester.

The dairy cow is a most wonderful living machine; but to be worthy of the name, she should have in addition to dairy breeding



FIG. 3.—BEEF AND DAIRY TOP LINES

Beef animals utilize feed for developing a broad and thickly fleshed back. A triangular shaped back indicates dairy type and milk production.

and good size for her breed certain other characteristics. They are: feed capacity, dairy temperament, good constitution and health, and well-developed milk organs—all of which are essential to a large and profitable production of milk and butter fat. A cow usually fails in the production of milk and in commanding the

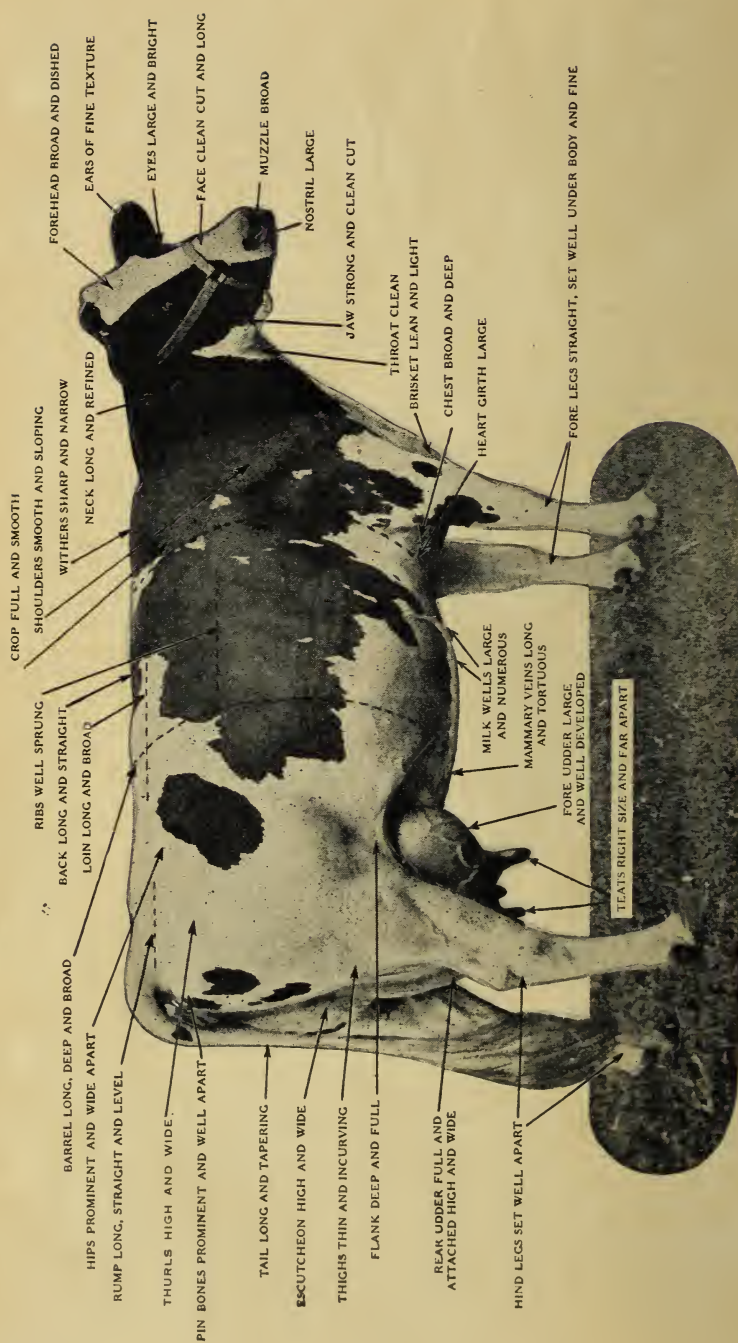


FIG. 4.—THE PARTS OF A DAIRY COW

A dairy cow should have large capacity for feed, a dairy temperament, well developed milk organs, fine quality, perfect health, and be capable of a large production of milk and butter fat. Duchess Skylark Ormsby, a former champion cow for yearly butter fat production, record 27,761.7 pounds milk, 1,205.09 pounds butter fat, shows excellence in all parts.

highest price, to the extent that she is lacking in one or more of these essentials. (Each part of the body shown in Figure 4 bears some relationship to one or more of them.)

Because symmetry and beauty please the eye and may have a definite value in determining the animal's ability to qualify as a profitable cow, she should also have style and quality which are indicated by a straight, level back and rump; clean-cut face and neck; straight, well-placed legs; symmetrical bones of good quality, fine hair, and mellow hide. Where one is able to consider all parts of the body and judge the essential features, he is not likely to err seriously in his judgment.

FEED CAPACITY

A large body, more especially the barrel, in proportion to the size of the animal indicates feed capacity. The body of the dairy cow should be wedge-shaped as viewed from either the front, the side, or the top of the withers. It should be wider at the hip points and pin bones than at the withers. The floor of the chest between the fore legs should also be wider than the top of the withers. Again, the body should be deeper from the hip points to the bottom of the udder than it is at the forequarters.

These characteristics of the body have led to the term "triple wedge-shape conformation." In considering the digestive capacity of the cow, it should be remembered that the base ends of the three wedges rather than the sharp ends indicate feed capacity.

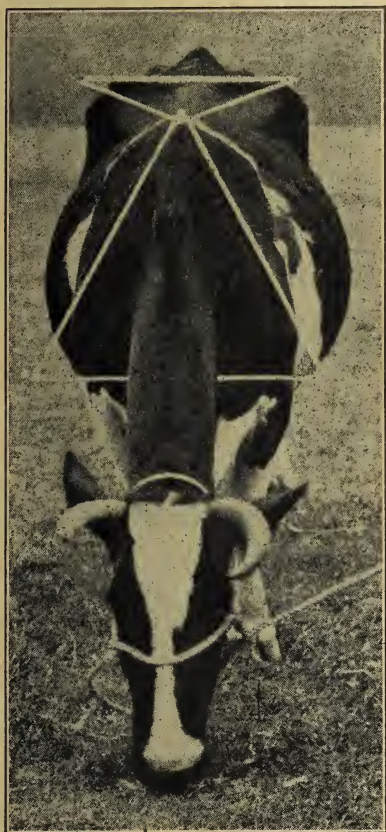


FIG. 5—LOOK FOR THE WEDGES

The body should be wedge shaped when viewed from the front and top of the withers, wider at the hip bones and at the floor of the chest than at the point of the withers.

Large digestive capacity is indicated by ribs well-sprung and far apart, an open chine, a back wide over the loins, wide-apart hips, and full and deep rear flanks resulting in a large body or so-called barrel. A wide forehead, a comparatively long face, broad muzzle, good-sized mouth and strong, sinewy jaws, are also considered indications of a large digestive capacity.

The tail is often measured in judging a cow; and to meet the standard requirements it should reach to, or below, the hocks and carry a good switch. This makes it most useful in brushing flies which is its chief purpose. Except that the loose joints of the tail indicate an open condition of the vertebrae of the back—which is

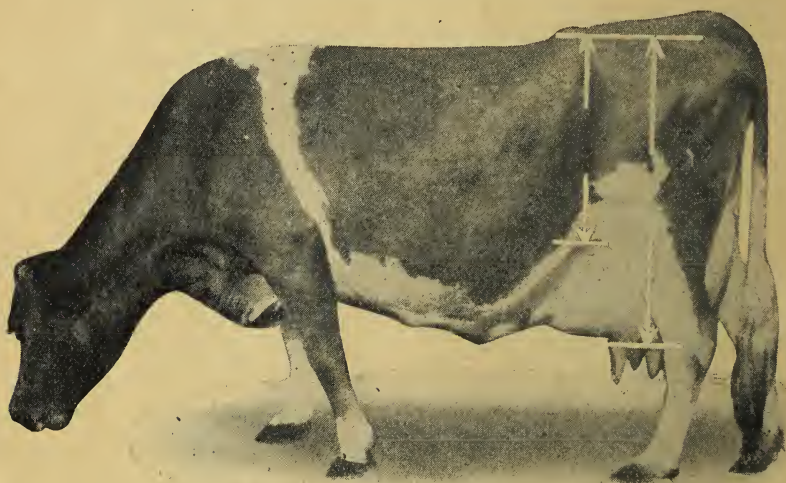


FIG. 6.—GREAT DIGESTIVE CAPACITY IS ESSENTIAL.

Fullness of flanks and good depth from the hips to the lower line of the rear flank and of the udder, together with well sprung ribs far apart, indicate a large digestive capacity.

desirable in the dairy cow, and may indicate length of body and thus greater capacity for feed—it is difficult to understand how a long tail would have any relation to milk production.

DAIRY TEMPERAMENT

The dairy temperament or dairy disposition of a cow indicates her ability to convert feed into milk rather than into flesh. The dairy breeds have acquired this ability through the process of selection and breeding for milk and butterfat production. It varies

in strength even among purebred dairy animals and, therefore, needs to be carefully considered in judging. A cow that is a large and economical producer of milk and butterfat is almost certain to have a highly developed dairy temperament.

Cows excelling in dairy temperament show the following characteristics:

Head and face—clean-cut in outline and indicative of fine quality. **Eyes**—prominent, bright and active. **Neck**—fine, clean-cut, neatly joined to the head, not too full at the throat and comparatively long and thin. **Shoulders**—oblique, comparatively bare of flesh and sharp at the withers. **Backbone, hips and pin bones**—prominent and sharp. **Ribs**—more or



FIG. 7.—A SHALLOW BODY LACKS CAPACITY

A narrow head, small eyes, nostrils, and mouth, usually accompany a narrow shallow body. A cow with these characteristics proves a disappointment as a milk producer.

less prominent and open. **Thighs**—thin and incurving, sometimes termed “cat hams.” **Bones**—in all parts of the body indicating quality rather than coarseness.

SHARP WEDGES INDICATE TEMPERAMENT

The lean, muscular tissue on the outside and underneath the shoulder blades and along the back, accounts for the compara-

tively sharp condition of the withers. The wedge-shaped conformation shown in Figure 5 is due to the absence of flesh about the neck and the forequarters. It may be said, therefore, that the sharp end of the triple wedge-shaped conformation is indicative of dairy temperament.

In judging quality and condition of the muscular tissue of the body, an allowance for the size, age and stage of lactation of the animal should be made. It should also be borne in mind that the bones and muscular tissues in a large cow are naturally heavier than in a smaller or younger animal. Then, too, there is not the natural refinement and spareness of form in the larger breeds that there is in the smaller ones. Marked coarseness, however, in any animal is undesirable. It is usually accompanied by a sluggish disposition that prevents the dairy cow from "performing at the pail"



FIG. 8.—A COW WITH MARKED DAIRY TEMPERAMENT

Clean cut features about the head and face, the fine clean neck, the prominence and sharpness of the back bone, hip points and pin bones, the thin, incurving thighs and the clean, fine shanks in this cow are indications of extreme dairy temperament.

satisfactorily. Young heifers with their first calves usually carry more flesh than cows of mature form. All cows that are properly fed usually show more flesh development toward the close of lactation and prior to freshening than they do when four or five months advanced in lactation. This should be considered in judging dairy temperament.

CONSTITUTION AND VIGOR

A cow, to be most profitable, should possess strength, vigor, and health to insure her ability to work a reasonable number of years at producing milk and offspring. The period of usefulness of a cow depends upon a rational system of feeding and management, as well as upon constitutional strength. There are great differences, however, in what appears to be the natural strength and endurance of cows. Johanna Clothilde 4th, the foundation of the University Johanna family of cows, lived to her fifteenth year. Her twelve years' work in the University herd resulted in five daughters and six sons, and an average annual production of 12,616.43 pounds of milk and 452.20 pounds of butterfat. This is one example of how a good dairy cow should be able to maintain a profitable production until ten or more years of age. As a matter of fact, however, many cows do not prove profitable to this age.

Size corresponding to that for the breed, without coarseness, and a healthy circulation of blood to all parts of the body, combine to indicate health and vigor. The dairy cow yields greatest profits and performs her work easily only when all parts of the body perform their respective functions and there is capacity for feed consumption and milk production. When the cow is sick or naturally dull and sluggish, all the glands of the body are inactive. The result is a dry, harsh condition of the skin, a staring coat and a low production of milk. The blood circulatory system includes the heart, lungs, arteries and veins. These organs respectively force, purify, and carry blood to and from all parts of the body.

When the feed which the cow eats is digested and assimilated the blood carries it to the various parts of her system including the udder. This is abundantly supplied with blood vessels, and in producing a full flow of milk converts approximately 30 per cent of the digestible nutrients of the ration into milk. Nearly 25 per cent more of the digestible nutrients of the ration go to produce the energy required to make the milk. The balance of 45 per cent of the nutrients serve for body maintenance. A large amount of blood circulating to the udder is especially essential to milk production. This is judged largely by the veins appearing on the under side of the body and quite frequently on the outside of the udder. The oily condition of the skin and the oily

secretions noted in the ears and at the end of the tail indicate a strong circulation of blood to all parts of the body, and the activity of all healthy glands including those of the udder. Large, open nostrils, providing ample air passages to the lungs for purification of the blood, are important. A narrow head, small mouth, contracted listless eyes, and a narrow body with a heart girth indicating lack of fullness back of the shoulders and especially in the region of the fore flanks, indicate poor constitution and vigor.

WELL-DEVELOPED MILK ORGANS HIGHLY ESSENTIAL

The udder is the milk secreting organ, and its proper development is therefore essential. Associated with the udder are the



FIG. 9.—THE LOCATION OF THE MILK WELLS

Several milk wells of good size through which the mammary veins pass into the body are the best indications of the amount of blood that circulates through the udder and supplies the milk secreting glands.

mammary veins, frequently called "milk veins," on the under side of the body extending forward and disappearing through openings termed "milk wells." These veins do not carry milk but carry blood away from the udder. They are usually regarded as part of the milk organs and are considered with the udder in judging its quality, form and capacity. Blood sometimes becomes gorged in the veins as a result of too small milk wells, a point that should be considered in judging the size of the veins. Cows, even of

large digestive capacity and of pure dairy breeding, fail to make satisfactory production when they have poorly developed milk organs.

The udder consists of two large glands, more or less distinctly divided to correspond with each of the four teats. The duct of each teat enters a small cavity termed the "milk reservoir." The milk reservoir of each quarter is more or less surrounded by lobes of glands held closely in position by connecting tissue. These lobes resemble thick bunches of grapes. Each lobe has several divisions called lobules corresponding to the grapes. The lobules are made of small divisions called "alveoli," which correspond to the seeds of the grapes. These alveoli are again made up of small cells surrounded by fine network of blood vessels and nerves. Milk is secreted by these cells; and it is believed that the more tortuous



FIG. 10.—TYPES OF GOOD UDDERS

The udders should be large, well proportioned, balanced, extended far forward, and high up between the thighs. (See udder on left.) It should be of fine texture, pliable, and the skin should stretch readily when the udder has been milked out. (See udder on right.)

and branching the milk veins are and the more extensions they have that pass into numerous wells, the greater the capacity of the cells of the udder will be for secreting milk.

The best cows of all breeds have comparatively large udders with equally developed quarters extending well forward underneath the body and a good distance up behind and between the thighs. Swinging or pendulous udders result from poor attachment. Irregularity in the development of the quarters is a criticism to be offered on many udders. The first consideration, however, should be size and quality. The udder tissues should be fine and plastic rather than fatty or coarse and hard.



FIG. 11.—PROMINENT UDDER VEINS

A good circulation of blood through the udder is indicated by the prominent udder veins. Teats of good size and well placed make hand and machine milking easier.

the milk organs and indicative of their capacity for producing milk. If this is true, the escutcheon should be given as much importance as the milk veins. Guenon also regarded the peculiar condition of spots of hair noted at the back side of the udder of some cows and termed "thigh ovals" as an important point to consider in connection with the escutcheon. A lack of positive knowledge, however, of the relation of these features to milk production prevents giving them as much consideration as is given to the milk veins. A wide escutcheon that extends high at the rear of the quarters is considered most desirable, and usually is allowed one or two points on the score card for dairy breeds.

This condition, combined with a good system of veins underneath the body and well-developed on the udder, constitutes well-developed milk organs.

The escutcheon, which is outlined by a mark made by the difference in direction in which the hair runs at the rear of the thighs above the udder, was thought by Guenon, a French student of the dairy cow, to be associated with the arteries that carry blood to the udder. The escutcheon, therefore, would be associated with



FIG. 12.—ESCUTCHEON AND OVALS

The escutcheon is outlined by a line formed by the difference in the direction of which the hair lies above the udder. The thigh ovals when found on the rear of each hind quarter of the udder are regarded as indications of a large milk flow.

STYLE AND QUALITY

No cow ever existed that could be called perfect in all respects when scored by a critical judge. Every animal will be more or less deficient in regard to form and features that are considered in judging her value. Style relates to symmetry of form, breed characteristics and the general beauty and attractiveness of the cow. Good proportions and a clean-cut appearance of the head, neck, shoulders, body, hind quarters, udder and legs, have much to do in giving a cow a well-balanced and neat appearance. A straight top line, including the back and rump; a neck not set too low and free from throatiness and unnecessary dewlap; shoulders that blend nicely with the body and are free from coarseness and undue prominence over the tops; and fineness of bones at the hip points and about the tail and legs, are all marks of good style. Too much refinement that would tend to make the animal appear delicate and inefficient would naturally detract from proper style.

Much of the style of an animal depends upon good quality of the texture of various parts of the body. Fineness and smoothness of the bone and hair, the pliable oily texture of the hide, waxy appearance of the horns and hoof, brightness and alertness of the eye, and a general healthy appearance of the animal are marks of good quality.

Deficiencies which detract from style and quality are:

Head lacking width and dish of forehead; too long or too short, narrow at the muzzle or coarse in appearance.

Horns coarse and poorly set and turned.

Body too short or lacking in depth with ribs too close, too short, or too straight.

Back not level.

Hind quarters short, narrow or drooping with thighs too thickly fleshed.

Udder unbalanced and irregular in shape, with teats too short, irregular in size, or improperly placed.

Legs crooked, out of proportion in size of bone, apparently too short or too long, and set too close or too far apart.

A tail set too far forward, too heavy in bone and too short.



FIG. 13.—TWO TYPES OF ~~BAD~~ RUMPS
Rumps that droop and are low at the pin bones detract from the beauty of the cow and are usually accompanied by udders which tilt forward.



FIG. 14.—FOUR TYPES OF UNDESIRABLE UDDERS
Udders deficient in the fore quarters, irregular in the size of quarters, pendulous in form or funnel shaped make milking hard and reduce the capacity for milk production.

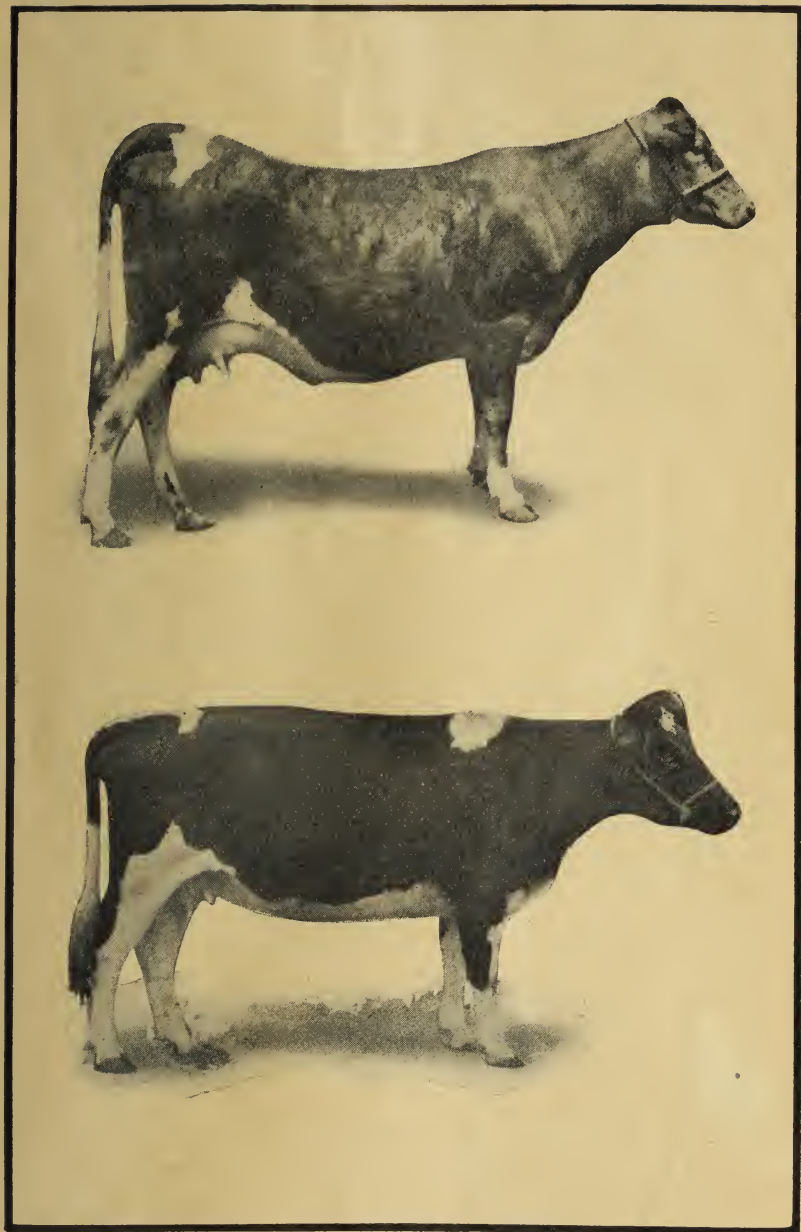


FIG. 15.—INFERIOR TOP LINES

A straight, strong back is most desirable. Backs which are not straight detract from the general appearance of the cow and may indicate weakness.

JUDGING BY RECORDS OF PRODUCTION

The cow is very much like a race horse when it comes to judging her ability to perform. Both must be judged by their appearance together with their record of performance. The milk scale and the Babcock tester, assisted by judgment of the eye, are the best means of selection in building up a profitable dairy herd. Persistently following this means of judging will lead to the establishment of a herd which is both pleasing to the eye and capable of a large and profitable production of milk and butterfat. Every dairyman can afford to weigh the milk from each cow at each milking and have a sample of the milk of each cow tested once a month. Results accurate enough for all practical purposes may thus be secured.

SCALE AND TESTER WOULD INCREASE PROFITS

Feed worth millions of dollars is now being eaten by cows that do not pay their cost of keep. This feed would be saved annually or converted into milk, and the value of dairy products of the state would be greatly increased if the scale and tester means of judging were employed on every dairy farm.

The Advanced Registry system, maintained by dairy cattle associations, records the milk and butterfat production of cows officially tested, and gives valuable aid in judging many purebred dairy animals on the basis of their ability to perform. Cow-testing associations, directed by competent supervisors, are highly valuable in helping dairymen to judge the production ability of their cows.

THE PEDIGREE AS A BASIS FOR JUDGING

In buying dairy cattle and in selecting animals for breeding and milk production, the future returns and excellence of the herd should be considered. Such judgment must be based on a knowledge of the family or group of ancestors from which the animals descend. This frequently can only be determined by pedigrees.

A pedigree is a statement showing the ancestors of a given animal for two or more generations. Its value as the basis for judging lies in the fundamental law that "like tends to produce like." Where the ancestors of a given animal or group of animals are uniformly good, it is reasonably sure that individual or herd ex-

cellence and profitable returns for the future will be sustained. Dairymen will find it profitable to take pedigrees into consideration, together with individuality and performance in their efforts to make herd improvement.

WHAT CONSTITUTES A GOOD PEDIGREE

Excellent and uniform character of ancestors, more especially the immediate ones.

The absence of inferior or mediocre ancestors.

Lines of ancestry showing meritorious families of the breed.

Accompanying statements of facts regarding records of performance, show yard winnings, direct offspring of meritorious character, and bona fide sale values.

PEDIGREES MUST BE TRUE

The writer of a pedigree should be a responsible person and there should be every reason to believe that all statements are authentic. The so-called "padded pedigree," where statements in support of the ancestors of a given animal are far-fetched and only distantly applicable, is of little value to a judge and frequently misleading to the novice and to the public. The two pedigrees presented illustrate the contrast between a good and a misleading pedigree.

GOOD PEDIGREE

Sir Pietertje Ormsby
Mercedes 37th,
110160.

Born Dec. 27, 1912.

Sire of: 18 A. R. O.
daughters, 2 above 30
lbs., 10 others above
20 lbs.

Ponderosa Grace Piet-
ertje Mercedes 3 yrs.
Butter in 365 days,
1072.60 lbs., milk 23-
360.00 lbs.

Greatest proven son of
Sir Pietertje Ormsby
Mercedes.

Sir Pietertje Ormsby
Mercedes, 44931.

Sire of: 71 A. R. O.
daughters, 2 with
over 40 lbs.; 11 others
above 30 lbs., 35 oth-
ers above 20 lbs.

12 above 1000 lbs.
butter, semi-official
in 365 days, 1 at
4 yrs. 1389.45 lbs., 1
at 4 yrs. 1323.36 lbs.,
2 others above
1200.00 lbs.

Spring Brook Bess
Burke 2d, 131387.

Butter 365 days,
1290.94 lbs. milk 24-
918.10 lbs., butter 7
days 38.231 lbs., milk
792.301 lbs.

2 other semi-official
records above 1000
lbs. of butter and 21-
000 lbs. of milk.

Has 2 A. R. O. daugh-
ters, 1 with 40.74 lbs.
in 7 days, 1043.65 lbs.
in 365 days.

Jack Mercedes, 35077.

6 A. R. O. daughters,
2 with 22 and 30.44
lbs.

2 A. R. O. sons.

Pietertje Maid Orms-
by, 78051.

Butter 7 days, 35.56
lbs., milk 535.40 lbs.,
butter 30 days, 145.66
lbs., butter 365 days,
759.13 lbs., milk 16-
531.80 lbs.

2 A. R. O. daughters, 1
with 30.75 in 7 days,
1255.62 in 365 days, 3
A. R. O. sons.

Sir Johanna Canary
DeKol, 44034.

18 A. R. O. daughters,
4 with over 30 lbs., 6
others with over 20
lbs. 2 A. R. O. sons.

Spring Brook Bess
Burke, 98734.

Butter 365 days
1094.16 lbs., milk 25-
227.10 lbs., Butter 7
days 34.81 lbs., milk
630.80 lbs.

Average for 3 A. R. O.
records 31.95 lbs., 3
yearly records 839.75
lbs.

MISLEADING PEDIGREE

Colantha Oakland DeKol Clyde
H. B., 149311.
Wt. 2000, born April 18, 1914.

A son of Dutchland Colantha
Belle Boy and a well-bred
dam.

His sire combines in the closest degree the blood of the two great century sires Colantha Johanna Lad and Hengerveld DeKol, who together have twenty-two 30-lb. daughters and fifty-six 30 to 37-lb. grand-daughters.

Dutchland Colantha Belle Boy, 70156
Rik Friesland Queen 4Y. 28.57
Junette Careme Johanna
2d 3½ Y. 28.20
Abbekerker Lady Colantha 3Y. 27.24
Little Goldie of Wayside 3Y. 24.78
Two sons with A. R. O. daughters.

Records of his dam and sire's dam:
Ave.
Butter 7 days 31.55
Half-brother to sire of Lorna
D. Col. 35.00
Lakeview Dutch. Artis 3½ Y. 34.66
Col. Gladi Parana 31.72
Princess Aag. Inka 3½ Y. 31.68
Jenny Linn Col. 4Y. 30.95
Butter 30 days 122.51

Ida Oakland DeKol Clyde, 202462.
Her sire is a half-brother to the
dam of:

Urma Burke 6 Y. 35.21
Ave. per cent Fat 5.26, Milk 535.20
Butter 7 days 5 Y. 30.24
Ave. per cent Fat 5.46, Milk 443.10
Butter 7 days 4 Y. 26.65
Butter 7 days 3 Y. 24.90

Grace Segis DeKol Boon
4½ Y. 31.65

Urmagrace 31.26
Butter 30 days 125.95

and to the sire of Lotta Clyde
7 D. 7 Y. 31.33

HOW TO JUDGE A PEDIGREE

Considerable knowledge of individual animals and of families representing the respective breeds is necessary to enable one to judge on the basis of pedigree. The pedigree is of most value only in the hands of those familiar with the character and performance of the animals named. The experiences and knowledge of reliable men who have successfully engaged in the breeding and building of herds is invaluable and should always be sought by younger men, who are naturally beginners. Concentration of interest on a given breed, and better still on a few of the families of a breed, is highly essential to success in acquiring a working knowledge of pedigrees. After one has had the experience of breeding several generations of animals in a given herd and has taken advantage of the opportunity to study and make many observations, it is natural to rely on the pedigree as one of the important means of judging. The following suggestions are offered on how to acquire a knowledge of pedigrees.

Study breed literature and learn to know the leading families and the most prominent individual animals of a breed.

Become acquainted with men most prominent in promoting the affairs of a breed.

Visit fellow breeders, sales, and shows.

Keep posted on facts relative to your herd development and improvement.

In herd development, have animals of one family predominate with which you are thoroughly familiar.

JUDGING THE DAIRY BULL

The dairy bull, like the dairy cow, offers great opportunity for the exercise of judgment. A knowledge and consideration of the parts shown in Figure 16 are necessary for judging and valuing the bull. As an individual, the dairy bull should be typical of his breed and show feed capacity, dairy temperament, constitution and vigor, style and quality, similar to the cow. A masculine character indicated by greater size for his age, greater strength and vigor, a stronger neck well-crested at full age, heavier and more prominent shoulders and forequarters, together with only rudimentary teats and a fairly discernible mammary vein system, are the characteristic differences one would note in judging the

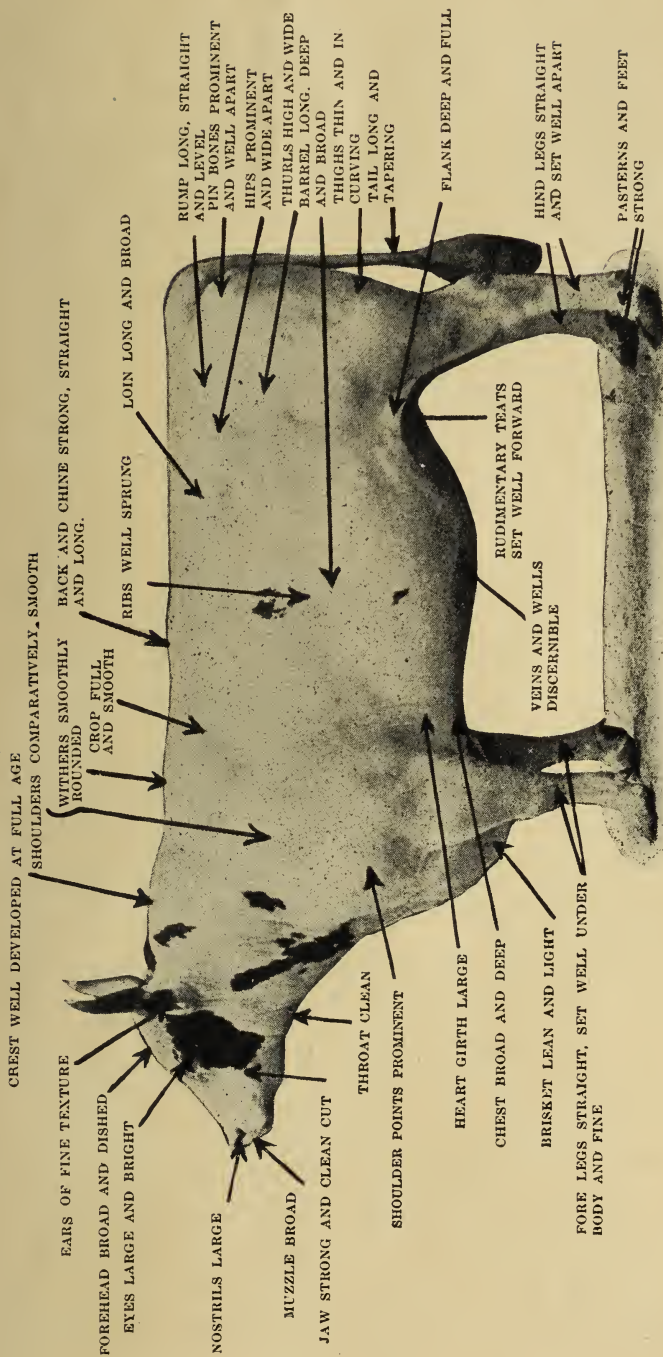


FIG. 16.—A DAIRY BULL SHOULD BE TYPICAL OF HIS BREED

He should have good size for his age and show feed capacity, dairy temperament, quality, masculinity, vigor and lines indicating style. His prepotency and milk production ability must be shown in his daughters.

individuality of a bull and that of a cow. Particular attention should be given to a well balanced conformation and blending of parts, a soft pliable hide with oily secretions and a fine, velvet-like coat of hair. Considering these together with the parts defined in Figure 16 gives a basis for judging a bull's individuality.

JUDGING THE BULL AS A SIRE

The dairy sire is of more importance than any other animal in the herd because of the great influence he exerts on the breeding and building of the herd. There is much truth in the statement that "The sire is more than half the herd." He is the more valuable half, however, only when his daughters are more satisfactory individuals and producers than are their mothers. It is highly desirable, therefore, to judge the dairy sire on the broadest possible basis. Individuality and pedigrees indicating purity and the best of breeding should both be given due consideration in judging. In the final analysis, much dependence may be placed on the value of the daughters of a bull—providing he has reached the age and maturity to have a number of them—in determining whether or not he is worthy of further use as a sire. A proven sire of this character is of great value.

USE ONLY BRED-FOR-PRODUCTION SIRE

A full consideration of a bull's pedigree with reference to his dam, granddams and great-granddams, and the milk and butter-fat production records of the daughters of his sire, grandsires and great-grandsires indicates to what extent a bull is "bred-for-production." A good pedigree is one of the essentials for judging the true value of a bull. Without a good pedigree there are chances for disappointment sooner or later in the development of a herd, due to the inheritance of weak characters that may have been common to animals in immediate or remote generations of ancestors.

PRESERVE THE PROVEN SIRES

The most valuable sires are good individuals—at least they are without serious objectionable features. They have good pedigrees indicating "bred-for-production" qualities; and their prepotency, or ability to produce, is marked. The daughters of a valuable sire are uniformly desirable and better than their dams—

or anyhow as good as an excellent lot of dams. Sires having these qualities should be continued in service to the fullest extent. Such excellence, prepotency and high value on the part of sires are rare qualities. In many instances they are not appreciated to the extent that men will seek to locate sires having these traits. Many sires are sold to the butcher before there is opportunity to judge fully their merits. Too much emphasis cannot be placed on the importance of exercising the best and most complete judgment possible in the selection of bulls for herd sires and on preserving and using proven sires to the fullest extent.

JUDGING AS AN ART

Judging dairy cattle in its relationship to the dairy industry may be regarded as a useful art. The careful dairyman who is anxious to build up the best possible herd will find it advantageous to study carefully the art of judging on the basis of individuality, pedigree and performance of cattle.

JUDGING IN THE SHOW RING

Show yard judging is confined to making awards on the basis of individuality and beauty of form as appreciated by the eye of the expert judge. A keen eye is needed for judging and is a necessity for the highest degree of success in stock breeding for "Beauty is bought by judgment of the eye." Show yard awards may not necessarily mean greatest production or "bred-for-production" individuals. There is no reason, however, why show yard animals cannot be a combination of beauty, choicest breeding, and high productive capacity. Such animals are becoming more common, and with such a combination of excellence are the most valuable class of animals to be found.

BECOMING A SHOW YARD JUDGE

One may learn a great deal and acquire much of the art of judging from books on the subject and by observing the work of expert judges whenever there is opportunity to do so. The best judges, however, are men who have owned or managed a first-class dairy herd, and who have made a careful study of judging in the show ring. Making careful and accurate observations and exercising judgment based on the best standards of excellence will assist more than any other thing in becoming an expert judge

of livestock. One should take advantage of every opportunity to observe the work of expert judges and to take part in scoring and judging exercises whenever possible.

SCORE CARDS OR SCALE OF POINTS

The dairy score card or scale of points is an enumeration of all parts of the cow, arranged in given order, with a statement of the requirements and the number of points for a perfect score of each part. The sum of the points for all parts totals 100. This arrangement is termed, "A scale of points" and is the standard of excellence by which the individuality of the cow with reference to her form and body characteristics may be judged. Each national dairy cattle breed association has a scale of points for its particular breed. It is well for the judge to have in mind the scale of points for the breed on which he is to pass judgment. Otherwise he may err seriously.

On account of the great amount of time required to go through the mechanical operation of scoring a large number of animals, the score card system of judging is not practiced at shows or in buying cows. The primary object of the scale of points is to systematically train the mind to give consideration and weight to each part of the animal in formulating a judgment. Score cards are furnished by dairy cattle breeders' associations and it is a splendid thing for local associations of dairymen and students of judging to have scoring exercises.

HOW TO CONDUCT A SCORING EXERCISE

Every community interested in the improvement of its dairy cattle might have one or more meetings each year for score card practice. Here are a few general rules: Choose someone with experience and a knowledge of correct dairy form for leader and demonstrator; have a sufficient number of animals to avoid having too many men crowd about and score the same one; have the animals stand at ease on a level floor or piece of ground provided with good light; inspect the cow from all directions at a distance of 10 to 16 feet noting carefully her size, form, quality and alertness, (too close contact with the animal often leads a judge to be deceived); note each point in the order it is named on the score card; use the hand only to determine the quality of the hair and hide, the secretion of the skin, the openness of the back, distance

apart of the ribs, the condition of the mammary veins and milk wells, and the quality of the udder.

The following rules may be employed to determine the extent to which any part should be cut. The cut for a deficiency never exceeds half of the total number of points allowed for perfection and is never less than .25 of one point. For example, the face is allowed 5 points for perfection and however deficient is never cut more than 2.5 nor less than .25 if deficient in the least. One's judgment must decide the amount of discount between these limits. No cut is made where no deficiency is noted. When all have completed their scores of the animal or group of animals, the leader or expert should read his score and call for comparisons and discussions on all parts of the animal to help everyone to arrive so far as possible at a proper judgment.

The scale of points shown on page 31 is used more especially in teaching elementary stock judging at the University of Wisconsin. It teaches the essential features and the structural requirements of the dairy cow. It applies to all dairy cows without reference to breed, and will be valuable to anyone interested in the selection and judging of cows, who is not familiar with what constitutes dairy types and the essential features of the dairy cow.

A scale of points for each dairy breed is also given on pages 32 to 43. These have been prepared by the respective breeders' associations and apply only to the breed of cattle for which each was prepared. They teach the size, color markings and peculiarities of form of the different breeds, as well as the essential features of a dairy cow. The breeder and judge of dairy cattle should thoroughly familiarize himself with the scale of points for the particular breed or breeds he may have occasion to judge.

JUDGING EXERCISES AND CONTESTS

When one becomes familiar with all the parts and essential features of the dairy cow, competitive judging or placing a group of animals in the order of their merit will be interesting and helpful in acquiring the art of judging. Judging exercises and contests can be held at meetings of cattle breeders' associations, county and state fairs, farmers' clubs, boys' clubs and various other meetings. Officials of local breed associations and fairs, county agricultural representatives, high school teachers of agri-

culture, leaders of boys' clubs and anyone else interested in the bettering of rural conditions can organize and hold judging contests.

A judging card is very helpful in placing competitive classes of animals. The card for dairy cattle shown below clearly indicates how one who has become familiar with essential features of dairy animals may proceed to judge and place four animals of a given class and feel that no important considerations have been overlooked. In referring to the card and making use of it, one should familiarize himself with all of the parts and characteristics of an animal that define feed capacity, dairy temperament and the other essential features, and then rate the class to be judged in the order that his judgment dictates.

The judging card is also arranged for grading the student or contestant as his work in placing a class of animals is checked with that of an expert judging committee. Judging exercises and contests will do much to arouse an interest in better classes of farm animals. Furthermore, such exercises will be the means of stimulating the power of observation, clear thinking and good judgment.

**THE UNIVERSITY OF WISCONSIN
DAIRY CATTLE JUDGING CARD**

Class..... *Date*.....

Student..... *No*.....

Placing	1st	2nd	3rd	4th	Student's Grade
Feed capacity.....					
Dairy temperament.....					
Constitution.....					
Back and rump.....					
Milk organs.....					
Style and quality.....					
Total Average					
Final placing of class.....					

Total
Student's final grade ||
||

SCALE OF POINTS FOR DAIRY CATTLE

Student..... Date.....
 Animal..... Animal.....

GENERAL APPEARANCE—A dairy cow should weigh not less than 800 pounds, have large capacity for feed, a dairy temperament, well developed milk organs, fine quality and perfect health, and be capable of a large production of milk and butter fat.

SCALE OF POINTS	Per- fect	Points deficient		Points deficient	
		Student's score	Cor- rected	Student's score	Cor- rected
INDICATION OF CAPACITY FOR FEED—25 POINTS					
Face, broad between the eyes and long; muzzle clean cut; mouth large; lips strong; lower jaws lean and sinewy.....	5				
Body, wedge shape as viewed from front, side and top; ribs, long, far apart and well sprung; breast full and wide; flanks, deep and full.....	10				
Back, straight; chine, broad and open; loin broad and roomy.....	5				
Hips and thurls, wide apart and high.....	5				
INDICATION OF DAIRY TEMPERA- MENT—25 POINTS					
Head, clean cut and fine in contour; eyes, prominent, full and bright.....	3				
Neck, thin, long, neatly joined to head and shoulders and free from throatiness and dewlap.....	4				
Brisket, lean and light.....	2				
Shoulders, lean, sloping, nicely laid up to body; points prominent; withers sharp.....	4				
Back, strong, prominent to tail head and open jointed.....	3				
Hips, prominent, sharp and level with back.....	3				
Thighs, thin and incurving.....	4				
Tail, fine and tapering.....	1				
Legs, straight; shank fine.....	1				
INDICATION OF WELL DEVELOP- ED MILK ORGANS—25 POINTS					
Rump, long, wide and level; pelvis roomy.....	3				
Thighs, wide apart; twist, high and open.....	3				
Udder, large, pliable, extending well forward and high up behind; quarters, full, symmetrical, evenly joined and well held up to body.....	15				
Teats, plumb, good size, symmetrical and well placed.....	4				
INDICATIONS OF STRONG CIR- CULATORY SYSTEM, HEALTH, VIGOR AND MILK FLOW—25 POINTS					
Eyes, bright and placid.....	2				
Nostrils, large and open.....	3				
Chest, roomy.....	5				
Skin, pliable; hair, fine and straight; secretions, abundant in ear, on body and at end of tail.....	7				
Veins, prominent on face and udder; mammary veins, large, long, crooked and branching; milk wells large and numerous.....	7				
Escutcheon, wide and extending high up.....	1				
Total.....	100				

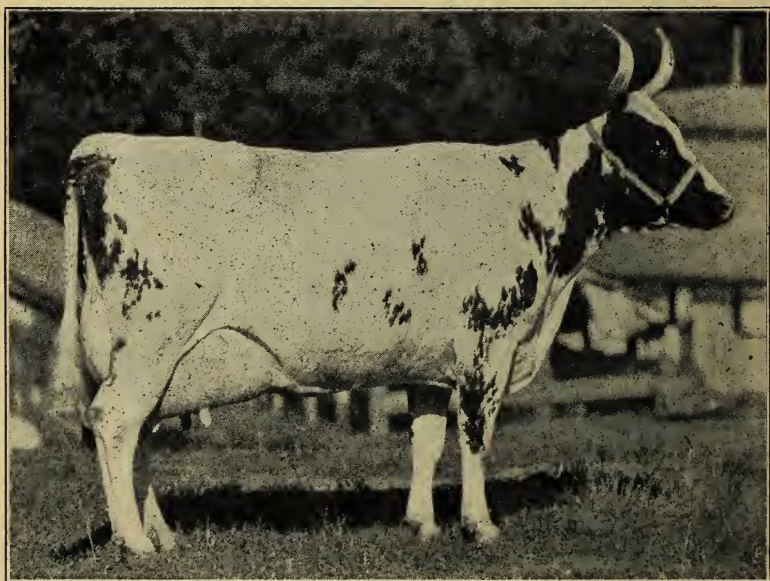


FIG. 17.—THE NOTED SCOTCH BREED

The native home of the Ayrshire is southwestern Scotland. Cattle of this breed were imported into Canada early in the 19th century and into the United States in 1822. The American Ayrshire Breeders' Association, organized in 1875, provides for the registration of Ayrshire cattle bred in the United States. C. L. Burlingham, Brandon, Vermont, is the present secretary.

The Ayrshire cow, Garclaugh May Mischief 27944, holds the world's milk record for this breed with a production of 25,329 pounds of milk testing 3.53 per cent, and 894.91 pounds of butter fat. Lily of Willowmoor has the highest butter fat record for the breed, with a production of 22,596 pounds of milk testing 4.22 per cent, and 955.56 pounds of butter fat.

Laurie Lorain 22202 holds the best Wisconsin record for the breed with a production of 16,753 pounds of milk testing 4.28 per cent, and 717.6 pounds of butter fat.

SCALE OF POINTS FOR AYRSHIRE COW

Head	10
Forehead—Broad and clearly defined.....	1
Horn—Wide set on and inclining upward.....	1
Face—Of medium length, slightly dished; clean cut, showing veins	2
Muzzle—Broad and strong without coarseness, nostrils large...	1
Jaws—Wide at the base and strong.....	1
Eyes—Full and bright with placid expression.....	3
Ears—Of medium size and fine, carried alert.....	1
Neck. —Fine throughout, throat clean, neatly joined to head and shoulders, of good length, moderately thin, nearly free from loose skin, elegant in bearing.....	3
Fore Quarters	10
Shoulders—Light, good distance through from point to point but sharp at withers, smoothly blending into body.....	2
Chest—Low, deep and full between back and forelegs.....	6
Brisket—Light	1
Legs and Feet—Legs straight and short, well apart, shanks fine and smooth, joints firm, feet of medium size, round, solid and deep	1
Body	13
Back—Short and straight, chine lean, sharp and open jointed...	4
Loin—Broad, strong and level.....	2
Ribs—Long, broad, wide apart and well sprung.....	3
Abdomen—Capacious, deep, firmly held up with strong muscular development	3
Flank—Thin and arching.....	1
Hind Quarters	11
Rump—Wide, level, long from hooks to pin bones, a reasonable pelvic arch allowed.....	3
Hooks—Wide apart and not projecting above back nor unduly overlain with fat.....	2
Pin Bones—High, wide apart.....	1
Thighs—Thin, long and wide apart.....	2
Tail—Fine, long and set on level with back.....	1
Legs and Feet—Legs strong, short, straight, when viewed from behind and set well apart; shanks fine and smooth, joints firm, feet medium size, round, solid and deep.....	2
Udder. —Long, wide, deep but not pendulous, nor fleshy; firmly attached to the body, extending well up behind and far forward; quarters even; sole nearly level and not indented between teats, udder veins well developed and plainly visible.....	22
Teats. —Evenly placed, distance apart from side to side equal to half the breadth of udder, from back to front equal to one-third the length; length $2\frac{1}{2}$ to $3\frac{1}{2}$ inches, thickness in keeping with length, hanging perpendicular and not tapering.....	8
Mammary Veins. —Large, long, tortuous, branching and entering large orifices	5
Escutcheon. —Distinctly defined, spreading over thighs and extending well upward	2
Color. —Red of any shade, brown, or these with white; mahogany and white, or white, each color distinctly defined. (Brindle markings allowed but not desired.).....	2
Covering	6
Skin—Medium thickness, mellow and elastic.....	3
Hair—Soft and fine.....	2
Secretions—Oily, of rich brown or yellow color.....	1
Style. —Active, vigorous, showing strong character, temperament inclined to nervousness but docile.....	4
Weight. —At maturity not less than 1,000 pounds.....	4
Total	100

SCALE OF POINTS FOR AYRSHIRE BULL

Head	16
Forehead—Broad and clearly defined.....	2
Horn—Strong at base, set wide apart inclining upward.....	1
Face—Of medium length, clean cut, showing facial veins.....	2
Muzzle—Broad and strong without coarseness.....	1
Nostrils—Large and open.....	2
Jaws—Wide at the base and strong.....	1
Eyes—Moderately large, full and bright.....	3
Ears—Of medium size and fine, carried alert.....	1
Expression—Full of vigor, resolute and masculine.....	3
Neck. —Of medium length, somewhat arched, large and strong in the muscles on top, inclined to flatness on sides, enlarging symmetrically toward the shoulders, throat clean and free from loose skin	10
Fore Quarters	15
Shoulders—Strong, smoothly blending into body with good distance through from point to point and fine on top.....	3
Chest—Low, deep and full between back and forelegs.....	8
Brisket—Deep, not too prominent and with very little dewlap..	2
Legs and Feet—Legs well apart, straight and short, shanks fine and smooth, joints firm, feet of medium size, round, solid and deep	2
Body	18
Back—Short and straight, chine strongly developed and open jointed	5
Loin—Broad, strong and level.....	4
Ribs—Long, broad, strong, well sprung and wide apart.....	4
Abdomen—Large and deep, trimly held up with muscular development	4
Flank—Thin and arching.....	1
Hind Quarters	16
Rump—Level, long from hooks to pin bones.....	5
Hooks—Medium distance apart, proportionately narrower than in female, not rising above the level of the back.....	2
Pin Bones—High, wide apart.....	2
Thighs—Thin, long and wide apart.....	4
Tail—Fine, long and set on level with back.....	1
Legs and Feet—Legs straight, set well apart, shanks fine and smooth, feet medium size, round, solid and deep, not cross in walking	2
Scrotum. —Well developed and strongly carried.....	3
Rudimentaries, Veins, Etc. —Teats of uniform size, squarely placed, wide apart and free from scrotum; veins long, large, tortuous with extensions entering large orifices, escutcheon pronounced and covering a large surface.....	4
Color. —Red of any shade, brown, or these with white; mahogany and white, or white, each color distinctly defined.....	3
Covering	6
Skin—Medium thickness, mellow and elastic.....	3
Hair—Soft and fine.....	2
Secretions—Oily, of rich brown or yellow color.....	1
Style. —Active, vigorous, showing strong masculine character, temperament inclined to nervousness but not irritable or vicious.....	5
Weight. —At maturity not less than 1,500 pounds.....	4
Total	100

SCALE OF POINTS FOR BROWN SWISS COWS AND HEIFERS

Head, medium size and rather long.....	2
Face, dishd, narrow between horns and wide between eyes.....	2
Ears, large, fringed inside with light colored hair, skin inside of ear a deep orange color.....	2
Nose, black, large and square with mouth surrounded by mealy colored band, tongue black.....	2
Eyes, moderately large, full and bright.....	2
Horns, short, regularly set with black tips.....	2
Neck, straight, throat clean, neatly joined to head, shoulders of good length, moderately thin at the withers.....	4
Chest, low, deep and full between and back of fore legs.....	6
Back, level to setting of tail and broad across the loin.....	6
Ribs, long and broad, wide apart and well sprung from thin, arching flanks	3
Abdomen, large and deep.....	5
Hips wide apart, rump long and broad.....	4
Thighs, wide, quarters not thin.....	4
Legs, short and straight with good hoofs.....	2
Tail, slender, well set on, with good switch.....	2
Hide of medium thickness, mellow and elastic.....	3
Color, shades from dark to light brown, at some seasons of the year grey; white splashes near udder not objectionable, light stripe along back. White splashes on body or sides objectionable. Hair between horns usually lighter shade than body.....	4
Fore udder, wide, deep, well rounded but not pendulous, nor fleshy, extending far forward on the abdomen.....	12
Rear udder, wide, deep, but not pendulous, nor fleshy, extending well up behind	12
Teats, rather large, set well apart and hanging straight.....	8
Milk, veins large, long, tortuous, elastic and entering good wells.....	6
Disposition quiet	2
Size, evidence of constitution, and stamina.....	5

100

SCALE OF POINTS FOR BROWN SWISS BULL

Head, same as cow.....	2
Face, same as cow.....	2
Expression, full of vigor, resolution and masculinity.....	3
Ears, same as cow.....	2
Nose, same as cow.....	2
Eyes, same as cow.....	2
Horns, same as cow.....	2
Neck, of medium length, somewhat arched, large and strong in muscles on top, sloping symmetrically to shoulders. Shoulders large and strong, smoothly blending into body.....	10
Chest, same as cow.....	10
Back, same as cow.....	10
Ribs and abdomen, same as cow.....	10
Hips, same as cow.....	6
Thighs, same as cow.....	6
Legs, same as cow.....	2
Tail, same as cow.....	2
Hide, same as cow.....	3
Color, same as cow.....	4
Scrotum well developed and strongly carried.....	3
Rudimentary teats, squarely placed wide apart and free from the scrotum	6
Milk veins, same as cow.....	6
Disposition quiet	3
Size, evidence of constitution and stamina.....	4

100

Dark, smoky skins very objectionable.

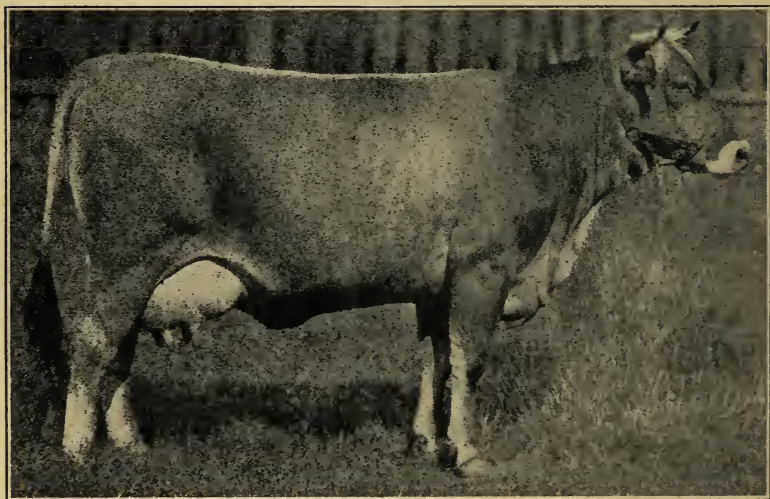
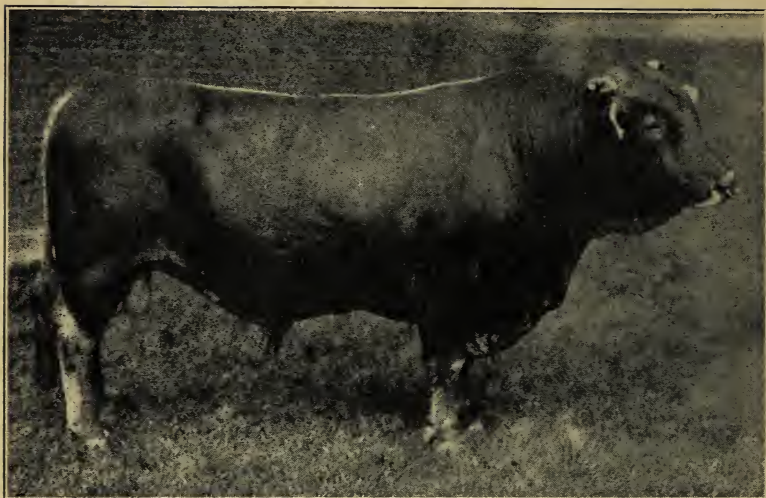


FIG. 18.—ORIGINALLY FROM SWITZERLAND

Brown Swiss cattle were first imported into America from Switzerland, their native home, in 1869. The Brown Swiss Cattle Breeders' Association of America was organized in 1880 and promotes the interests of the breed in this country. Ira Inman, Beloit, Wisconsin, is the present secretary.

College Bravura 2d 2577 holds the world's record for this breed with 19,460.6 pounds of milk testing 4.10 per cent, and 798.16 pounds of butter fat. Flora Duwire 4105, highest production Wisconsin cow of this breed, made 16,538.1 pounds of milk testing 3.193 per cent, and 649.42 pounds of butter fat.

SCALE OF POINTS FOR GUERNSEY COW

Head. —Clean cut, lean face, wide mouth and muzzle with open nostrils, full bright eye with gentle expression. Forehead long, broad between the eyes and dishing.....	6
Horns. —Small at base, medium length, not too spreading.....	1
Neck. —Long and thin; clean throat.....	2
Withers. —Chine rising above shoulder blades, that are moderately thick and not coarse.....	3
Back. —Straight from withers to hips.....	8
Hips. —Wide apart, not too prominent.....	2
Rump. —Long, continuing with level of the back, also level between hip bones and pin bones.....	5
Thurls. —Wide apart and high.....	2
Chest. —Wide, and deep at heart, with least depression possible back of the shoulders	4
Body. —Deep and long, with well-sprung ribs which are wide apart. Broad loin. Thin arching flank.....	10
Thighs. —Thin, incurving seen from side, and wide apart from rear..	2
Legs. —Comparatively short, clean, wide apart and nearly straight when viewed from behind, squarely set under body.....	2
Hide. —Loose and pliable, and not thick, with oily feeling.....	3
Tail. —Neat and firm setting on, long, good switch.....	1
Udder	18
Veins prominent	2
Attachment to body long and wide.....	2
Extending well forward.....	5
Level and well up behind.....	4
Teats of good even size, well apart and squarely placed.....	5
Milk Veins. —Long, crooked, branching and prominent, with large, deep wells	4
Secretions Indicating Color of Product. —Indicated by depth of yellow, inclining toward orange in the pigment secretion in the skin, on the body generally, and especially discernible in the ear, at the end of bone of tail, around the eye, on the udder and teats and at the base of horns. Hoofs and horns amber colored.....	20
Color Markings. —A shade of fawn with white markings.....	2
Size. —Mature cows about 1100 pounds in milking condition.....	5

100

SCALE OF POINTS FOR GUERNSEY BULL

Head. —Clean cut, lean face, wide mouth and muzzle, with open nostrils, and full bright masculine eye. Broad between the eyes and dishing	8
Horns. —Small at base, medium length, not too spreading.....	1
Neck. —Long masculine neck with strong crest and clean throat.....	4
Withers. —Chine rising above shoulder blades, that are moderately thick and not coarse.....	3
Back. —Straight from withers to hips.....	8
Hips. —Wide apart, not too prominent.....	2
Rump. —Long, continuing with level of the back, also level between hip bones and pin bones.....	6
Thurls. —Wide apart and high.....	2
Chest. —Wide and deep at heart, least depression possible back of shoulders	6
Body. —Deep and long, with well-sprung ribs which are wide apart. Thin arching flank	10
Thighs. —Thin, incurving seen from side, and wide apart from rear..	2
Legs. —Comparatively short, clean, wide apart and nearly straight when viewed from behind, squarely set under body.....	2

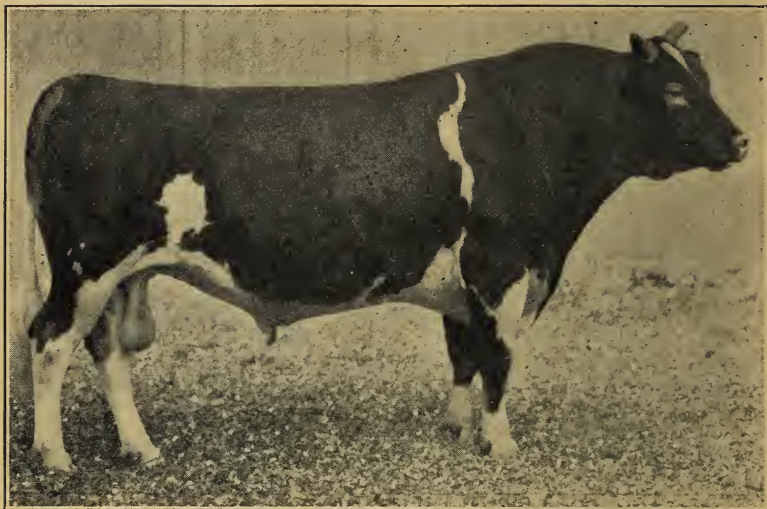


FIG. 19.—ONE OF THE CHANNEL ISLAND BREEDS

Guernseys have their origin in the Islands of Guernsey and Alderney, off the coast of France in the English Channel. They were imported into America as early as 1818, but not until 1893 did wide public interest in this breed develop. The American Guernsey Cattle Club was organized in 1877. William H. Caldwell, Peterboro, New Hampshire, is the present secretary.

Murne Cowan 19597 holds the world's milk record for this breed with a production of 24,008 pounds of milk testing 4.57 per cent, and 1,098.13 pounds of butter fat. Countess Prue 43785 is the highest record Guernsey in butter fat production. Her record is 18,626.9 pounds of milk and 1,103.28 pounds of butter fat.

Yeksa's Tops of Gold's Fannie 22362 is the highest production Wisconsin cow of the breed, with a record of 19,794.9 pounds of milk testing 4.64, and 981.53 pounds of butter fat.

Hide. —Loose and pliable, and not thick, with oily feeling.....	5
Tail. —Neat and firm setting on, long, good switch.....	1
Rudimentary Teats. —Teats wide apart and squarely placed.....	3
Milk Veins. —Long, crooked, branching and prominent, with large, deep wells	5
Secretions Indicating Color of Product. —Indicated by depth of yellow, inclining toward orange, of the pigment secretion of the skin on the body generally and especially discernible in the ear, at the end of bone of tail, around the eye, on the scrotum, and inside of thighs, and at base of horn. Hoofs and horns amber colored.....	20
Color Markings. —A shade of fawn with white markings.....	5
Size. —Mature bulls about 1,600 pounds.....	7
	<hr/>
	100

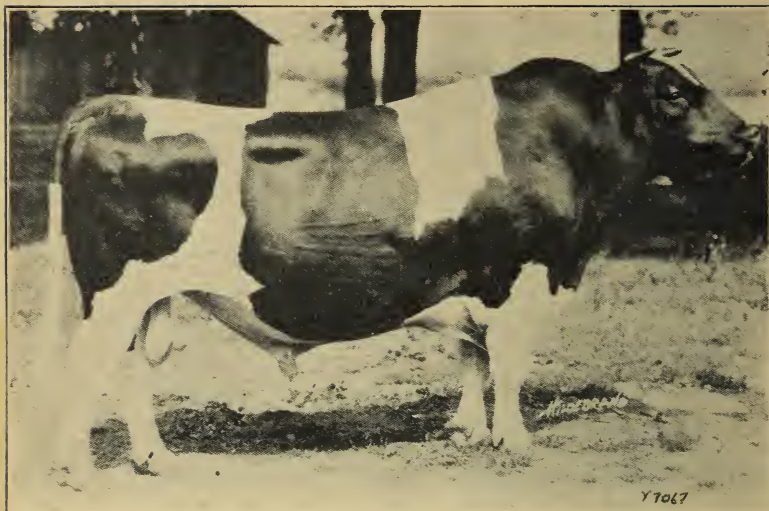


FIG. 20.—FIRST BRED TO MEET FRIESLAND'S NEEDS

The native home of the Holstein-Friesian cattle is in North Holland. Their introduction into America dates back to the 17th century. The Holstein-Friesian Association of America was organized to promote the breed in 1885. F. L. Houghton, Brattleboro, Vermont, is the present secretary. M. H. Gardner, Delavan, Wisconsin, supervises the registration of Advanced Registry animals.

The Holstein-Friesian cow, Segis Pietertje Prospect 221846, holds the world's milk record with a production of 37,381.4 pounds of milk testing 3.10 per cent, and 1,158.95 pounds of butter fat. Bella Pontiac 46321 C. H. B. of this breed holds the world's butter fat record with a production of 27,017.0 pounds of milk testing 4.66 per cent, and 1,258.40 pounds of butter fat.

Champion Dora Korndyke 134002 holds the Wisconsin record for the breed with a production of 29,395.7 pounds of milk testing 3.58 per cent, and 1,052.75 pounds of butter fat.

SCALE OF POINTS FOR HOLSTEIN-FRIESIAN COW

Head.—Decidedly feminine in appearance; fine in contour.....	2
Forehead.—Broad between the eyes; dishing.....	2
Face.—Of medium length; clean and trim, especially under the eyes; showing facial veins; the bridge of the nose straight.....	2
Muzzle.—Broad, with strong lips.....	1
Ears.—Of medium size; of fine texture; the hair plentiful and soft; the secretions oily and abundant.....	1
Eyes.—Large; full; mild; bright.....	2
Horns.—Small; tapering finely towards the tips; set moderately narrow at base; oval; inclining forward; well bent inward; of fine texture; in appearance waxy.....	1
Neck.—Long; fine and clean at juncture with the head; free from dewlap; evenly and smoothly joined to shoulders.....	4
Shoulders.—Slightly lower than the hips; fine and even over tops; moderately broad and full at sides.....	3
Chest.—Of moderate depth and lowness; smooth and moderately full in brisket; full in the foreflanks (or through at the heart).....	6
Crops.—Moderately full	2
Chine.—Straight, strong; broadly developed, with open vertebrae....	6
Barrel.—Long; of wedge shape; well rounded; with a large abdomen, trimly held up. (In judging the last item age must be considered.)	7
Loin and Hips.—Broad; level or nearly level between the hookbones; level and strong laterally; spreading from chine broadly and nearly level; hookbones fairly prominent.....	6
Rump.—Long; high; broad with roomy pelvis; nearly level laterally; comparatively full above the thurl; carried out straight to dropping of tail.....	6
Thurl.—High, broad	3
Quarters.—Deep; straight behind; twist filled with development of udder; wide and moderately full at the sides.....	4
Flanks.—Deep; comparatively full.....	2
Legs.—Comparatively short; clean and nearly straight; wide apart; firmly and squarely set under the body; feet of medium size, round, solid and deep.....	4
Tail.—Large at base, the setting well back; tapering finely to switch; the end of the bone reaching to hocks or below; the switch full....	2
Hair and Handling.—Hair healthful in appearance; fine, soft and furry; the skin of medium thickness and loose; mellow under the hand; the secretions oily, abundant and of a rich brown or yellow color	8
Mammary Veins.—Very large; very crooked (age must be taken into consideration in judging of size and crookedness); entering very large or numerous orifices; double extension; with special developments, such as branches, connections, etc.....	10
Udder.—Very capacious; very flexible; quarters even; nearly filling the space in the rear below the twist; extending well forward in the front; broad and well held up.....	12
Teats.—Well formed; wide apart; plumb and of convenient size.....	2
Escutcheon.—Largest; finest	2
Perfection	100

SCALE OF POINTS FOR HOLSTEIN-FRIESIAN BULL

Head.—Showing full vigor; elegant in contour.....	2
Forehead.—Broad between the eyes; dishing.....	2
Face.—Of medium length; clean and trim, especially under the eyes; the bridge of the nose straight.....	2
Muzzle.—Broad, with strong lips.....	1
Ears.—Of medium size; of fine texture; the hair plentiful and soft; the secretions oily and abundant.....	1
Eyes.—Large; full; mild; bright.....	2
Horns.—Short; of medium size at base; gradually diminishing towards tips; oval; inclining forward; moderately curved inward; of fine texture; in appearance waxy.....	1
Neck.—Long; finely crested (if the animal is mature); fine and clean at juncture with the head; nearly free from dewlap; strongly and smoothly joined to shoulders.....	5

Shoulders.—Of medium height; of medium thickness, and smoothly rounded at tops; broad and full at sides; smooth over front.....	4
Chest.—Deep and low; well filled and smooth in the brisket; broad-between the forearms; full in the foreflanks (or through at the heart)	7
Crops.—Comparatively full; nearly level with the shoulders.....	4
Chine.—Strong; straight; broadly developed, with open vertebrae....	6
Barrel.—Long; well rounded; with large abdomen, strongly and trimly held up.....	7
Loin and Hips.—Broad; level or nearly level between hookbones; level and strong laterally; spreading from the chine broadly and nearly level; the hookbones fairly prominent.....	7
Rump.—Long; broad; high; nearly level laterally; comparatively full above the thurl; carried out straight to dropping of tail.....	7
Thurl.—High; broad	4
Quarters.—Deep; broad; straight behind; wide and full at sides; open in the twist.....	5
Flanks.—Deep; full	2
Legs.—Comparatively short; clean and nearly straight; wide apart; firmly and squarely set under the body; arms wide, strong and tapering; feet of medium size, sound, solid and deep.....	5
Tail.—Large at base, the setting well back; tapering finely to switch; the end of bone reaching to hocks or below; the switch full.....	2
Hair and Handling.—Hair healthful in appearance; fine, soft and furry; skin of medium thickness and loose; mellow under the hand; the secretions oily, abundant and of a rich brown or yellow color..	10
Mammary Veins.—Large; full; entering large orifices; double extension; with special development, such as forks, branches, connections, etc.	10
Rudimentary Teats.—Large; well placed.....	2
Escutcheon.—Largest; finest	2
Perfection	100

SCALE OF POINTS FOR JERSEY COW

Head	7
A. Medium size, lean; face dished; broad between eyes; horns medium size, incurving.....	3
B. Eyes full and placid; ears medium size, fine, carried alert; muzzle broad, with wide open nostrils and muscular lips; jaw strong	4
Neck .—Thin, rather long, with clean throat, neatly joined to head and shoulders	4
Body	37
A. Shoulders light, good distance through from point to point, but thin at withers; chest deep and full between and just back of fore legs.....	5
B. Ribs amply sprung and wide apart, giving wedge shape, with deep, large abdomen, firmly held up, with strong muscular development	10
C. Back straight and strong, with prominent spinal processes; loins broad and strong.....	5
D. Rump long to tail-setting, and level from hip-bones to rump-bones	6
E. Hip-bones high and wide apart.....	3
F. Thighs flat and wide apart, giving ample room for udder....	3
G. Legs proportionate to size and of fine quality, well apart, with good feet, and not to weave or cross in walking.....	2
H. Hide loose and mellow.....	2
I. Tail thin, long, with good switch, not coarse at setting-on..	1



FIG. 21.—ANOTHER CHANNEL ISLAND BREED

The native home of Jersey cattle is on the Island of Jersey in the English Channel. Jersey cattle were imported into America as early as 1818. The American Jersey Cattle Club was organized in 1868. R. M. Gow, 324 West Twenty-third St., New York City, is the present secretary.

Eminent's Bess 209719, with a production of 18,783 pounds of milk testing 5.12 per cent, and 962.80 pounds of butter fat, holds the world's milk record for this breed. Plain Mary 268206 holds the world's fat record for this breed with a production of 15,255 pounds of milk testing 6.82 per cent, and 1,040 pounds of butter fat.

Trinket's Ebony L. 292925 is the highest production Wisconsin cow of the breed with a record of 14,112.2 pounds of milk testing 5.38 per cent, and 759.17 pounds of butter fat.

Udder	26
A. Large size, flexible and not fleshy.....	6
B. Broad, level or spherical, not deeply cut between teats.....	4
C. Fore udder full and well rounded, running well forward of front teats	10
D. Rear udder well rounded, and well out and up behind.....	6
Teats. —Of good and uniform length and size, regularly and squarely placed	8
Milk Veins. —Large, long, tortuous and elastic, entering large and numerous orifices	4
Size. —Mature cows, 800 to 1,000 pounds.....	4
General Appearance. —A symmetrical balancing of all the parts, and a proportion of parts to each other, depending on size of animal, with the general appearance of a high-class animal, with capacity for food and productiveness at pail.....	10
	100

SCALE OF POINTS FOR JERSEY BULL

Head	10
A. Broad, medium length; face dished; narrow between horns; horns medium in size and incurving.....	5
B. Muzzle broad, nostrils open, eyes full and bold; entire expression one of vigor, resolution and masculinity.....	5
Neck. —Medium length, with full crest at maturity; clean at throat...	7
Body	57
A. Shoulders full and strong, good distance through from point to point, with well-defined withers; chest deep and full between and just back of fore legs.....	15
B. Barrel long, of good depth and breadth, with strong, rounded, well-sprung ribs.....	15
C. Back straight and strong.....	5
D. Rump of good length and proportion to size of body, and level from hip-bones to rump-bones.....	7
E. Loins broad and strong; hips rounded, and of medium width compared with female.....	7
F. Thighs rather flat, well cut up behind, high arched flank...	3
G. Legs proportionate to size and of fine quality, well apart, with good feet, and not to weave or cross in walking.....	5
Rudimentary Teats. —Well placed.....	2
Hide. —Loose and mellow.....	2
Tail. —Thin, long, reaching the hock, with good switch, not coarse or high at setting-on.....	2
Size. —Mature bulls, 1,200 to 1,500 pounds.....	5
General Appearance. —Thoroughly masculine in character, with a harmonious blending of the parts to each other; thoroughly robust, and such an animal as in a herd of wild cattle would likely become master of the herd by the law of natural selection and survival of the fittest	15
	100



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